barassment pending in the Ahmedabad High Court in Gujarat;

(b) what are the reasons for their pendency; and

(c) by when these pending cases would be disposed of?

THE MINISTER OF STATE IN THE MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS (SHRI H.R. BHARDWAJ): (a) to (c). The information is being collected and will be laid on the Table of the House.

Biogas Plants in Rural Areas

594. SHRIMATI KAMLA SINHA:
DR. BAPU KALDATE:

Will the PRIME MINISTER be pleased to state:

(a) when the scheme to use biogas plant in the rural areas was introduced as an alternative cooking fuel;

(b) what, according to the review, if any, made by Government is the percentage of rural population using biogas plants as an alternative cooking fuel and to what extent the poorer sections of the rural population are using biogas plants; and

(c) how far it has served as a viable alternative to fuelwood consumption for domestic energy?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) The scheme to use biogas plants for generating alternative cooking fuels in the rural areas was initiated by KVIC during 1962 and about 7000 biogas plants were installed upto 1973-74. From 1974-75 to 1980-81 about 1,00,000 biogas plants were installed under a programme supported by the Ministry of Agriculture, Government of India. The National Project on Biogas Development (NPBD) being promoted by the Ministry of Non-Conventional Energy Sources was launched in November, 1981.

(b) A total of about 17.63 lakh biogas plants have been installed in the country upto March, 1993. Assuming a family size of five and 80% of total population as rural this reflects about 1.24% coverage of the total rural population. As per the findings of evaluation of biogas plants installed during Seventh Five Year Plan period nearly 57% of the biogas plants installed in the country belonged to beneficiaries in the categories of small/ marginal farmers, landless labour and scheduled castes/tribes.

(c) A total of about 17.63 lakh family type biogas plants installed in the country generate biogas equivalent to about 57 lakh tonnes of fuel wood per annum.

Gujarat Government's Schemes to Tap Wind Energy

595. SHRI RAJNI RANJAN SAHU:
SHRI RAJUBHAI A. PARMAR:
SHRIMATI VEENA VERMA:

Will the PRIME MINISTER be pleased to state:

(a) whether the Gujarat Government have submitted any scheme to tap wind energy;

(b) if so, what are the details thereof indicating the capacity and estimated cost thereof; and

(c) whether the scheme has been approved?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) to (c). Demonstration Wind Farm Projects aggregating to 16.145 MW have already been established and projects of 2.64 MW capacity are under installation in Gujarat.

Recently, a 2 MW wind farm project at Bamanbore in Surendra Nagar District has been approved at an estimated cost of Rs. 8.8 Crores. There is no other proposal pending with the Government.

Letters Received From MPs.

596. SHRI MOHAMMED AFZAL *alias* MEEM AFZAL: Will the PRIME MINISTER be pleased to state:

(a) the number of letters written by the Members of Parliament to the Minister of Non-Conventional Energy Sources during the period

from 1.4.90 to 31.3.93, alongwith yearwise details thereof;

(b) the number of letters out of them which were acknowledged;

(c) what is the number of letters in respect of which final replies were sent; and

(b) what is the break-up of final letters issued containing positive and negative replies respectively?

THE MINISTER OF STATE IN THE MINISTRY OF NON CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) to (d). Information is being collected and will be laid on the Table of the House.

Joint Sector Companies being set up for Wind Energy

597. SHRI SUNDER SINGH BHANDARI: Will the PRIME MINISTER be pleased to state:

(a) how many joint sector companies are being set up for harnessing wind energy and generating grid quality power;

(b) what has been the mode of implementation and how would they function; and

(c) which are the State and sites selected for the purpose?

THE MINISTER OF STATE IN THE MINISTRY OF NON CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) and (d) The Ministry of Non-Conventional Energy Sources has asked State Governments to consider formation of Joint Sector Companies for establishment of wind energy estates with private sector, State Government and Indian Renewable Energy Development Agency (IREDA) as shareholders. The Joint Sector Companies would take up turnkey planning, installation, operation and maintenance of individual wind turbines at a wind energy estate on behalf of small entrepreneurs/investors.

(c) The suggestion has recently been made to all potential States. Specific proposals are yet to be firmed up by them.

Power Generated through Non Conventional Sources

598. SHRI BHUPINDER SINGH MANN: Will the PRIME MINISTER be pleased to state:

(a) what is the quantum of power generated through non-conventional sources at present in India out of total power production;

(b) what are the details of the mechanism used for generating power through sea-waves in Tamil Nadu, Kerala and other coastal States; and

(c) what is the per unit cost of generating power through solar, thermal and sea-wave devices and the capital cost incurred on each of them?

THE MINISTER OF STATE IN THE MINISTRY OF NON CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) The aggregate installed capacity for power generation through non-conventional energy sources is approximately 166 MW which works out to about 0.24% of the total power capacity in the country.

(b) A project based on the principle of oscillating water column and self rectifying air turbine to produce power at Vizhinjam, near Trivandrum in Kerala is being experimented. A ramp-based low head water turbine mechanism has been proposed off the coast of Andaman & Nicobar Islands, with entire investment and technology for a 1 MW plant from a Swedish firm.

(c) The per unit cost and capital cost of power generation through Solar Photovoltaics, Solar Thermal, Thermal and Sea-wave devices are given in an enclosed Statement.